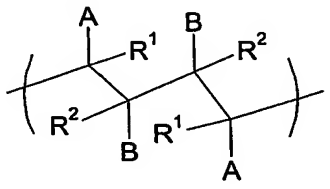
Claims

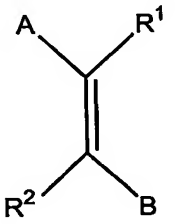
1. A process of recovering materials from a subterranean formation, the process comprising:

(A) (a) (i) selecting a first polymeric material having a repeat unit of formula



wherein A and B are the same or different, are selected from optionally-substituted aromatic and heteroaromatic groups and at least one comprises a relatively polar atom or group and R^1 and R^2 independently comprise relatively non-polar atoms or groups; or

(ii) selecting a first polymeric material prepared or preparable by providing a compound of general formula



wherein A, B, R^1 and R^2 are as described above, in an aqueous solvent and causing the groups C=C in said

compound to react with one another to form said first polymeric material;

(b) selecting a second polymeric material which includes a functional group which is able to react in the presence of said first polymeric material to form a third polymeric material;

(c) causing the formation of said third polymeric material by a reaction involving said first and second polymeric materials; and

(d) contacting the subterranean formation with said third polymeric material; or

(B) contacting the formation with a polymeric material (hereinafter "said third polymer material") which is a product of a reaction involving:

(a) a first polymeric material as described in (A)(a)(i) or (ii); and

(b) a second polymeric material which includes a functional group which is able to react in the presence of said first polymeric material to form said third polymeric material.

2. A process according to claim 1, wherein A and B are independently selected from optionally-substituted five or six-membered aromatic and heteroaromatic groups.

3. A process according to claim 1 or claim 2, wherein A and B represent different groups.

4. A process according to any preceding claim, wherein one of A and B represents an optionally-substituted aromatic group and the other one represents an optionally-substituted heteroaromatic group.

5. A process according to any preceding claim, wherein A represents an optionally-substituted aromatic group and B represents an optionally-substituted heteroaromatic group.

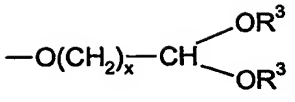
6. A process according to any preceding claim, wherein B represents an optionally-substituted pyridinyl group.

7. A process according to any preceding claim, wherein at least one of A and B includes a functional group which can undergo a condensation reaction.

8. A process according to claim 7, wherein A includes said functional group which can undergo a said condensation reaction.

9. A process according to any preceding claim, wherein one of groups A and B includes an optional substituent which includes a carbonyl or acetal group with the other one of groups A and B including an optional substituent which is an alkyl group.

10. A process according to any preceding claim, wherein A represents an aromatic group substituted by a formyl group or a group of general formula

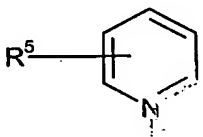


II

where x is an integer from 1 to 6 and each R^3 is independently an alkyl or phenyl group or together form an alkalene group.

11. A process according to any preceding claim, wherein B represents an optionally-substituted nitrogen containing heteroaromatic group.

12. A process according to any preceding claim, wherein B represents a group of general formula



III

wherein R^4 represents a hydrogen atom or an alkyl or aralkyl group, R^5 represents a hydrogen atom or an alkyl group and X^- represents a strongly acidic ion.

13. A process according to any preceding claim, wherein R_1 and R_2 are independently selected from a hydrogen atom or an optionally-substituted alkyl group.

14. A process according to any preceding claim, wherein R_1 and R_2 represent the same atom or group.

15. A process according to any preceding claim, wherein R_1 and R_2 represent a hydrogen atom.

16. A process according to any preceding claim, wherein said first and second polymeric materials include

functional groups which are arranged to react thereby to form said third polymeric material.

17. A process according to any preceding claim, wherein said second polymeric material includes a functional group selected from a alcohol, carboxylic acid, carboxylic acid derivative and an amine group.

18. A process according to any preceding claim, wherein said second polymeric compound is selected from optionally-substituted polyvinylalcohol, polyvinylacetate and polyalkylene glycol.

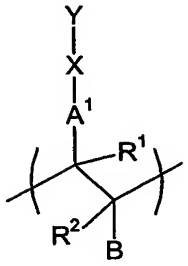
19. A process according to any preceding claim, wherein a mixture comprising 0.3 wt% or less of said first polymeric material is used in the preparation of said third polymeric material.

20. A process according to claim 19, wherein said mixture includes 3 wt% or less of said second polymeric material.

21. A process according to claim 19 or claim 20, wherein said mixture includes at least 80 wt% of water.

22. A process according to any of claims 19 to 21, wherein said mixture includes at least 0.0001 wt% of said first polymeric material; and at least 0.01 wt% of said second polymeric material.

23. A process according to any preceding claim, wherein said third polymeric material includes a moiety of formula



wherein R^1, R^2 and B are as described above, A^1 represents a residue of group A described above after the reaction involving said first and second polymeric materials, Y represents a residue of said second polymeric material after said reaction involving said first and second polymeric materials and X represents a linking atom or group extending between the residues of said first and second polymeric materials.

24. A process according to any preceding claim, wherein said subterranean formation includes a production means via which organic fluids can be removed from the subterranean formation and an injection means via which an injection fluid can be injected into the subterranean formation, wherein the process comprises injecting an injection fluid comprising said first polymeric material, said second polymeric material and/or said third polymeric material into the subterranean formation via said injection means to drive materials within the formation towards said production means.

25. A process according to claim 24, wherein said injection fluid is arranged to have a viscosity which is greater than the viscosity of water.

26. A process according to claim 24 or claim 25, wherein the viscosity of said injection fluid is greater than 1 centipoise and is less than 10 centipoise.

27. A process according to any of claims 24 to 26, wherein after injection of said injection fluid, a second injection fluid is injected via said injection means into said formation.

28. A formulation comprising (C) and (D) and at least one of either (A) or (B) as described below:

(A) (a) a first polymeric material according to any of claims 1 to 23; and

(b) a second polymeric material according to any of claims 1 to 23;

(B) (a) a third polymeric material according to any of claims 1 to 23;

(C) water;

(D) salt.

29. A formulation comprising salt water and a periodate.

30. A subterranean formation treatment method comprising:

contacting a subterranean formation with a formulation having a first viscosity, wherein said formulation includes a polymeric material having 1,2-diol linkages; and contacting the polymeric material with a cleavage composition which is able to cleave 1,2-diol linkages of the polymeric material and thereby reduce the viscosity of the formulation.